

VARVAK, P.M.; KIRIYENKO, V.I.; CHUDNOVSKIY, V.G.; KRYLOV, V.E.; BRAUDE,
Z.I.; EKIMIAN, V.A.; IVANOV-DYATLOV, A.I.; FRANOV, P.I.; ASHANOV,
A.Ye.; BERDICHEVSKIY, N.M.; IZAKSON, S.I.; KGZIKOV, V.P.; KOLESNIK,
K.S.; KUYDICH, S.A.; SVERDLOV, A.I.; SIMON, Yu.A.; SHEYNFAYN, S.R.;
BOLOTIN, V.V.; GOL'DENBLAT, I.I.

Book reviews and bibliography. Stroi. mekh. i rasch. soor. 3
no.6:46-50 '61. (MIRA 15:4)
(Bibliography--Structures, Theory of)

ASHCHEULOV, A.T.; PAVLICHUK, T.A.; KHUKHRINA, M.D.

Contrast of the lattice image formed by microscope lenses.
Zhur. nauch. i prikl. fot. i kin. 8 no.1:64-67 Ja-F '63.
(MIRA 16:2)
1. Gosudarstvennyy opticheskiy institut imeni S.I.Vavilova.
(Lenses, Photographic)

ASH, R.S., kand. ped. nauk.

Principles underlying the objective criticism of biology teaching
methods. Biol. v shkole no.1:12-15 Ja-F '58. (MIEA 11:1)

1. Blagoveshchenskiy pedagogicheskiy institut.
(Biology--Study and teaching)

*Ash, Zalman**El'yevich*
PHASE I BOOK EXPLOITATION

373

Ash, Zalman El'yevichRele (Relays) Moscow, Voyen. Izd-vo Min-vn obor. SSSR, 1957. 71 p.
(Radiolokatsionnaya tekhnika) No.of copies printed not given.

Ed.: Vrublevskiy, A.V., Engineer-Lt. Col.; Tech. Ed.: Solomonik, R.L.

PURPOSE: This monograph is part of the series "Radiolokatsionnaya tekhnika" (Radar Technique) which is addressed to officers of the armed forces attached to radar units. This book can also be used by a wide circle of readers desirous of learning in detail about the operation of the individual units and components of radar stations.

COVERAGE: This booklet deals with the design and principles of operation of electrical, thermal and mechanical relays. Standard relay circuits used in radar stations are discussed. It is pointed out that any further technical developments are inconceivable without widespread adoption and introduction of the various types of automatic and telemechanical devices used in control and protection systems. There is a brief historical review of the development over the last century of relay theory and technique. (pp. 3-6)

Card 1/3

Relays (cont.)

373

Various types of relays of Soviet manufacture are described. A complete list of all the booklets in the series is given at the end of the booklet (on the inside back cover).

There is a bibliography of eight Soviet sources.

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Card 2/3

Ashamini

VARNELLO, V.A.; ASHANIN, V.V.; PAVLOV, G.D.

Operation of water clarifiers in Gorkiy, Vod, i san, tekh. no.2:
26-31 F '57. (MILR 10:6)

(Gorkiy--Water--Purification)

ASHANIN, V. V., Cand Tech Sci -- "Study of the suspended sediment of ~~particiles~~ in ~~clarification~~ ~~clarifiers~~ ~~and~~ ~~decolorization~~ ~~of~~ ~~municipal~~ ~~services~~ of water." Mos, 1961. (Acad of ~~Geo-Economy~~ in K. D. Pamfilov) (KL, 8-61, 240)

- 196 -

- 196 -

ASHARINA, Ye.L.; BAYBAYEVA, S.T.

Chemical method for determining fumaric and maleic acids in
polyester resins and lacquers. Lakokras.mat. i ikh prim. no.2;
54-55 '64. (MIRA 17:4)

ASHASTIN, R., kand.tekhn.nauk; KHACHATRYAN, T., inzh.; VDOVETS, A., inzh.; PERLOV, Ye., inzh.; EYRING, E., inzh.

Using the method of thermal pyrolysis of casinghead gasoline for the simultaneous production of acetylene and ethylene. Prom.Arm. 5 no.4:50-52 Ap '62. (MIRA 15:5)

- A
1. ArmNIKHIIMPROYEKT.
(Armenia--Natural gas) (Acetylene) (Ethylene)

S/081/63/000/004/026/051
B149/B186

AUTHORS: Ashastin, R., Khachatryan, T., Vdovets, A., Perlov, Ye.,
Eyring, E.

TITLE: Simultaneous production of acetylene and ethylene by thermal
pyrolysis of gaseous gasoline

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1963, 450 - 451,
abstract 4N10 (Ayastani ardyunaberutyuny, no. 4, 1962, 56-59
[Arm.]; Prom-st' Armenii", no. 4, 1962, 50 - 52 [Russ.])

TEXT: C_2H_2 and C_2H_4 are obtained by pyrolysis of gaseous gasoline with
b.p. 28 - 150°, in apparatus yielding 40 - 70 kg/hr raw material. Fuel gas
(H_2 , natural gas etc.) undergoes combustion to O_2 in a special burner in a
water-cooled chamber. The gases are mixed with gasoline vapors in a mixer
at 2000° and passed to a reactor whose walls are protected from deposition
of coke and carbon black by a film of water. On leaving the reactor the
gases, containing 8 - 11% C_2H_2 and 9 - 15% C_2H_4 by volume are rapidly cooled
to terminate the reaction; after final cooling in the scrubber and washing

Card 1/2

Simultaneous production of...

S/081/63/000/004/026/051
B149/B106

free of tars; the gases are channeled to the separator. Data supplied: flow sheet of apparatus, composition of gases obtained, flow-rate coefficients and economic assessment of the method. [Abstracter's note: Complete translation.]

Card 2/2

ASHASTIN, R., kand.tekhn.nauk; MAL'YAN, E., inzh.

"Automatika" Scientific Research Institute at the service of
the industry. Prom.Arm. 5 no.11:52-54 N '62. (MIRA 15:12)
(Armenia--Automation)

....., ... L.

Dissertation: "A Study of the Carrying of Fuel in Furnaces With Mechanical Stoking."
Cand Tech Sci, Moscow Inst of Chemical Machine Building, 3 Jun 54. Vechernaya Poskva,
Moscow, 24 May 54.

SO: SUK 284, 26 Nov 1954

ASHAVSKAYA, A.M., gornyy inzh.

Using the vibration method for making boreholes. Nauch. trudy
MOI no.22:65-79 '57. (MIRA 11:9)
(Boring)

L 41628-66

ACC NR AP6019021

(N)

SOURCE CODE: UR/0032/66/032/001/0045/0047

AUTHOR: Ashavskiy, S. M.

40B

ORG: none

TITLE: Sensitivity of four-probe heads for the measurement of the resistivity of semiconductor materials

SOURCE: Zavodskaya laboratoriya, v. 32, no. 1, 1966, 45-47

TOPIC TAGS: resistivity, semiconductor research, surface property, electric measurement

ABSTRACT: The method described for raising the sensitivity of four-probe heads used to measure the volume and surface resistivity is based on increasing the distance between the potential probes. The theoretical justification for the method is presented and the expressions necessary for the calculation of the volume and surface resistivity are derived. It is shown that in the case of thin semiconductors the short distance between the surface on which the probes are located and the opposite surface leads to errors, for which suitable correction coefficients are derived and a nomogram for the determination of these coefficients under various conditions is plotted. Orig. art. has: 1 figure and 5 formulas.

SUB CODE: 09, 20 SUBM DATE: 00/ ORIG REF: 002/ OTH REF: 003

Card 1/1 hs

UDC: 537.311.33

ASHAVSKAYA, D. L.

USSR/Medicine - Serum
Medicine - Hemotherapy

Mar/Apr 1948

"The Mechanism of the Action of the Complex Complement," O. V. Vinogradova, D. L. Ashavskaya,
Serol Lab, Len "ermovenereol Inst, 2 $\frac{1}{2}$ pp

"Vest Venarol i Dermatol" No 2

Human serum in its complex state was not active component in the compound reaction. For
purposes of economy, 2% solution of erythrocytes and 1:5 dilutions of hemolysin were com-
pounded. Found addition of human serum to the serum of guinea pigs produced no results.

PA 70177

W^{aynstejn}, A.B.; Reznikova, L.S.; Ashavskaya, D.L.

Method of drying blood serum. Sovet. med. no.8:30-32 Aug.
1950. (CML 20:1)

1. Of the Central Skin-Venereological Institute (Director — N. M. Turanov) and of the Hospital imeni Korolenko (Head Physician — V. P. Volkov).

TSORFAS, I.I.; ASHAVSKAYA, D.L.

Methods of serum preservation for serodiagnosis of syphilis. Sovet.
med. no.5:25 May 1951. (CML 20:9)

1. Presented at the First Plenary Session of the Serological
Subcommission of the Ministry of Public Health USSR, 26 December
1949, Moscow.

VINOGRADOVA, O. V.; ASHAVSKAYA, D. L.

Comparative investigation of new sources of complement. Vest.
vener., Moskva no.5:29-32 Sept-Oct 1951. (CIML 21:1)

1. Of the Serological Laboratory of the Central Skin-Venere-
ological Institute.

STUDNITSIN, A.A.; RENIKOVA, L.S.; ASHAVSKAYA, D.L.

Comparative value of nonspecific and cardiolipin antigens in
the examination of cerebrospinal fluid in syphilitic\$. Vest.
derm. i ven. no.1:65-69 '65. (MIRA 18:10)

1. TSentral'nyy kozhno-venerologicheskij institut (dir.- kand.
med. nauk N.M. Turanov, zamestitel' direktora po nauchnoy chasti
prof. A.A. Studnitsin) i Bol'nitsa imeni Korolenko (glavnnyy
vrach A.I. Pustovaya), Moskva.

8/058/62/000/006/101/136
A062/A101

AUTHORS: Shevchik, V.N.; Ashavskaya, Ye.M.

TITLE: Electronic tuning of a retarding field generator

PERIODICAL: Referativnyy zhurnal, Fizika, no. 6, 1962, 13, abstract 6Zh94 ("Nauchn. yezhegodnik. Saratovsk. un-t. Fiz, fak. i N.-i. in-t mekh. i fiz., 1955". Saratov, 1960, 108 - 109)

TEXT: Results of an experimental study of the electronic tuning range of a decimeter-band retarding field generator are given. It has been found that the electronic tuning range of a retarding field generator is comparable to the corresponding magnitude in a standard reflex klystron. The advantage of the generator is the simplicity of its design and the possibility of using industrial triodes. ✓

[Abstracter's note: Complete translation]

Card 1/1

9,2580
S/194/62/000/006/145/232
D201/D308

AUTHORS: Shevchik, V.N., and Ashavskaya, Ye.M.

TITLE: Electronic tuning of a generator with delaying field

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
no. 6, 1962, 13, abstract 6Zh94 (Nauchn. yezhegodnik.
Saratovsk. un-t. Fiz. fak. i N.-i. in-t mekhan. i fiz.
1955. Saratov. 1960, 108-109)

TEXT: The authors give the results of experimental study of the range of electronic tuning of a decimeter wave generator with delaying field. It is established that the range of electronic tuning of such a generator is comparable with the corresponding quantity for a standard reflex klystron. The advantages of the generator are its simple construction and the possibility of using industrial triodes. [Abstracter's note: Complete translation.] ✓B

Card 1/1

(mark vynosimy, faksim)

DROGALIN, O.V., inzhener; RUSAKOV, V.E., inzhener; ASHAVSKIY, A.F., inzhener.

Installation for vibration-churn drilling of blast holes in hard
rock. Gor.sbir. no.2:41-44 S '57. (MIRA 10:3)

1. Tsentral'noye konstruktorskoye byuro Ministerstva geologii i
okhrany nedor.

(Rock drills)

ASHAVSKIY, A.M.; LITVINOV, N.N.

Using electronic modeling installations for calculating
optimum parameters of a drilling process. Razved.i okh.nedr
26 no.5:22-26 My '60. (MIRA 13:7)

1. TSentral'noye konstruktorskoye byuro.
(Boring) (Electromechanical analogies)

ASHAVSKIY, A.M., inzh.

Calculation of all the parameters of percussion-vibration
machines. Gor. zhur. no.7:47-50 Jl '61. (MIRA 15:2)

1. TSentral'noye konstruktorskoye byuro Ministerstva
geologii i okhrany nedr, Moskva.
(Boring machinery)

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000102320017-5

ASHAVSKIY, A.M.; VOLKOV, Yu.P.

Analyzing the performance of vibrodrills. Trudy TSKB no. 5:46-5:
162. (MIRA 18:7)

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000102320017-5"

ASHAVSKIY, A.M., kand.tekhn.nauk

Designing optimal parameters of boring equipment for mines. Ugol'
40 no.3:47-49 Mr '65. (MIRA 18:4)

ASHAVSKIY, I.

It began in the "Young eagle" club. Sov.profsoiuzy 18 no.12:
36-37 Je '62. (MIRA 15:6)

1. Predsedatel' detskogo kluba "Orlenok", g. Gor'kiy.
(Gorkiy--Children's clubs)

ASHAVSKIY, M.S.; SHAMINA, M.S.(Moskva)

Certain problems of trichomonal infections of the urogenital tract. Urologia no.2:48-52 Ap-Je '55. (MLRA 8:10)

1. Iz kozhno-venerologicheskogo otdeleniya (zav.dotsent V.P.Volkov) bol'nitsy medsantrud (glavnnyy vrach A.P.Timofeyeva)

(URETHRITIS, bacteriology,
Trichomonas, in males)
(TRICHOONIASIS
urethritis, in males)

105-7-24/29
I.D. H.A.K. 105-7-24/29

AUTHOR: ASHAVSKIY, S.M., Eng. 105-7-24/29
TITLE: Strong Semiconductor Rectifiers. (Moshchnyye poluprovodnikovyye
vypryamiteli, Russian)
PERIODICAL: Elektrичество, 1957, Nr 7, pp 89-91 (U.S.S.R.)

ABSTRACT: 1.) A collection of articles published in foreign periodicals
in the course of the last two years. A survey of the development
of selenium-, germanium-, and silicon rectifiers.
(With 1 Illustration)
2.) A short description of the cable-laying project across the
English Channel, which is planned to be carried out in
1957, in accordance with what was declared by the joint
Franco-British committee in the fall of 1956.

ASSOCIATION: Not given
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress
Card 1/1

ASHAYEV, M.M.; TONKONOGIY, A.Ya.

Operating hydraulic systems of Dt-54A tractor combined with
FN-4-35 plows. Mekh.sil'.hosp. 8 no.9:12-14 S '59.
(MIRA 13:1)

1. Rabotniki spetsial'nogo konstruktorskogo byuro zavoda im.
Oktyabri'skoy revolyutsii.
(Tractors--Hydraulic equipment)

ASHAYEV, M.M.; TONKONOGOV, A.Ya. [Tonkonohov, A.IA.]

PPN-5-35 semimounted five-bottom plow, Mekh. sil'.hosp. 11 no.8:30-
31 Ag '60. (MIRA 13:9)

1. Rabotniki spetsial'nogo konstruktorskogo byuro zavoda im. Oktyabr'-skoy revolyutsii.

(Plows)

ASHAY V. L. A.; VELIKOVKA, N. P.

Comparative study on the effect of substances of animal and microbial origin on the cells of Ehrlich's ascitic carcinoma.
Nauch. trudy Kaz. gos. med. inst. 14:87-88 '64. (MRA 18:9)

1. Tsentral'naya nauchno-issledovatel'skaya laboratoriya (rav. - kand. biolog. nauk V.V.Senkevich) Kazanskogo meditsinskogo instituta.

OVRUTSKIY, G.D., dotsent; ZELENKOVA, N.P.; ASHAYEVA, L.A.

Cytologic study of the effect of some pigments usable in the treatment of diseases of the mucous membrane of the oral cavity. Vop. obshchei stom. 17:74-77 '64.

(MIRA 18:11)

1. Tsentral'naya nauchno-issledovatel'skaya laboratoriya Kazanskogo gosudarstvennogo meditsinskogo instituta.

*Plum
phys*

Illustration for absorption apparatus
invented by F. H. ALLEN. U.S.S.R. No. 94,949, filed 2.
1957. The app. consists of 2 concentric spheres having
vents feeding into each other, also an injector to atomize
the absorption liquid in the inside sphere. M. J. Lough.

KM
KLD
CJW

ASHBEL', F.B.; PARSHINA, A.M.; GOYZMAN, M.S.; ZHIZHINA, L.I.; KUFTSOVA, K.M.

Express analysis of organometallic compounds based on reflected
 β -radiation. Zav. lab. 31 no.9:1062-1063 '65. (MIRA 18:10)

S/032/62/028/011/005/015
B104/B102

AUTHORS: Ashba', F. B., Gaydadymov, V. B., Zhishina, L. I.,
Parshina, A. M., and Shtifman, I. M.

TITLE: Express method for analyzing silicon alloys by reflected
 β -radiation

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 11, 1962, 1338 - 1339

TEXT: A method of comparing the intensity of β -radiation reflected from samples of a binary alloy with that reflected from a standard of the same alloy is suggested. Since the intensity of reflected β -radiation is directly proportional to $z^{2/3}$ of the reflecting element, the composition of binary alloys can be determined from the intensity ratio of the reflected β -radiation if standard and sample have nearly the same composition. A device consisting of a differential ionization chamber with d-c amplifier, as developed by K. S. Kalugin, V. V. Markelov, and V. B. Gaydadymov, was used for analyzing copper-silicon alloys. The device was calibrated against various standards, the range of measurement being changed by appropriate compensation of the ionization current. The method has an error of determination amounting to $\pm 0.2\%$ and the analysis takes 8 - 10 min.

Card 1/2

Express method for analyzing...

S/032/62/028/011/005/015
B104/P102

Iron admixtures slightly affect the accuracy. There are 3 figures and
1 table.

Card 2/3

1.1000

S/141/59/002/05/016/026
E041/E321AUTHOR: Ashbel', N.I.TITLE: Simulator Study of a Linear AutopilotPERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika,
1959, Vol 2, Nr 5, pp 787 - 794 (USSR)

ABSTRACT: The block diagram of Figure 1 describes the course-control system with the following components: OP, the controlled object (a ship); K_f and ΔK - measuring elements; C - a summing device; Y - an amplifier; CM - a servomotor; P - the steering arrangement. The measuring elements are a free (3 degrees of freedom) gyroscope sensing course deviation and a rate gyroscope integrating the deviation with time. Pick-offs convert these readings to voltages which are summed as shown. The equations describing the transfer properties of each block in the diagram are: the ship, Eq (1); the gyros, between Eqs (1) and (2); the summing point, Eq (2); the amplifier, Eq (3); the servomotor, Eq (4); the whole autopilot, Eq (5). The characteristic closed loop equation is Eq (6). The analysis is made by expressing the time constants T_1 and T_2 in terms of the other

Card 1/4

68653

S/141/59/002/05/016/026
EO41/E321

Simulator Study of a Linear Autopilot quantities in Eq (6) and plotting T_2 against T_1 . The time constant T_1 is that of the ship and is the ratio of the moment of inertia about a vertical axis to the coefficient of viscous friction; T_2 refers to the rate gyro and depends on the moment of inertia of the spinner, the angular speed and the spring rate. In the T_2-T_1 diagram of Figure 2 the stable region is that confined between the curve and the T_2 axis. When K ($K = K_1 K_2 K_3 N$, see Eq (1) for N) increases the stable area shrinks; when T_3 (servomotor time constant) falls, the area expands. Since all the coefficients in Eq (6) are positive, the Hurwitz criterion becomes $(T_1 + T_3)T_2 - (T_1 + T_3)^2 - T_1 T_3 K T_2^2 > 0$. This class of system is referred to as structurally stable since it may be made stable by altering only one parameter.

Card2/4

08053

S/141/59/002/05/016/026
E041/E321**Simulator Study of a Linear Autopilot**

Another variant of parameter analysis is now considered in which K_2 (the amplifier gain) is plotted against T_1 . The respective equations are T_1 , (Eq 12) and K_2 , (Eq 13). The condition $T_3 < 1/4KT_1$, previously observed in Figure 2, cannot be fulfilled here for practical servomotor designs. Positive acceleration feedback is therefore applied to the servomotor block. An alternative is negative feedback embracing the free gyro and the servomotor. For the particular values given in the first paragraph of Section 3, p 791, substitution is made in Eq (6); the real and imaginary parts of $K_2(j\omega)$ being set out in Table 1. Table 2 gives the ordinates $P(\omega)$ from the $K_2(j\omega)$ hodograph. The frequency characteristic is Figure 4, from which the linear approximations of Figure 5 are deduced. Whence the transient response is Figure 6 with an effective settling time of 6.5 sec.

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4

68653

Simulator Study of a Linear Autopilot

S/141/59/002/05/016/026
E041/E321

There are 6 figures, 2 tables and 6 Soviet references.

ASSOCIATION: Gor'kovskiy gosudarstvennyy universitet
(Gor'kiy State University)

SUBMITTED: April 20, 1959

Card 4/4

✓

82459

S/141/60/003/03/014/01⁴

E192/E382

9,4150

AUTHORS: Ashbel', N.I., Denisov, G.G. and Dozorov, V.A.

TITLE: An Instrument for the Display of Three-dimensional
Phase Trajectories

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika,
1960, Vol. 3, No. 3, pp. 540 - 543

TEXT: The development of the instrument was suggested by Andronov
at Gor'kiy University (Ref. 3). It was required to obtain
simultaneously two displays of plane projections of the phase
trajectories by means of two oscilloscopes.. Such an instrument
was developed and described in a paper by Andronov and others
(Ref. 4). Recently, it was found, however, that a simpler
instrument is possible. The block diagram of this device is shown
in Fig. 1. The device has three inputs for the quantities propor-
tional to the coordinates x, y, z of the phase space and two
outputs; one of the outputs is periodically scanned by means of
an electronic or electromechanical switch and produces a voltage
proportional to $y \pm kx$. This voltage signal is produced by a
wideband amplifier Y, having a gain k, an inverter N and
an adding circuit C. The resulting signal is applied to the

Card 1/3

82459

S/141/60/003/03/014/014

E192/E382

An Instrument for the Display of Three-dimensional Phase
Trajectories

horizontal plate of an oscilloscope. The voltage proportional to the coordinate z is taken from the second output and applied to the vertical deflection plates of the oscilloscope. In this manner two plane projections are simultaneously obtained on the screen of a single oscilloscope and these can be immediately observed stereoscopically. A detailed circuit diagram of the instrument is shown in Fig. 2. The amplifier and the inverter are based on a triode. The anode and cathode of the triode are connected to a relay P , which is driven by a multivibrator based on a double triode. The adding circuit is in the form of an amplifier provided with negative feedback; the anode load of this amplifier is in the form of a triode. The output voltage of the adding circuit is applied to the grid of a cathode follower, whose output terminals are connected to the horizontal deflection

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S/141/60/003/03/014/014

E192/E382

An Instrument for the Display of Three-dimensional Phase
Trajectories

plates of the oscillograph. The display circuit was employed to observe the limit cycles of the oscillator shown in Fig. 3. The projections of the limit cycle for this circuit are shown in the photograph of Fig. 4. There are 4 figures and 6 references: 5 Soviet and 1 English.

ASSOCIATION: Gor'kovskiy gosudarstvennyy universitet
(Gor'kiy State University)

SUBMITTED: January 23, 1960

Card 3/3

86861

92584

S/141/60/003/005/016/026
E192/E382AUTHOR: Ashbel', N.I.TITLE: Theory of the Oscillator Based on a Point-contact
TransistorPERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
Radiofizika, 1960, Vol. 3, No. 5, pp. 866 - 871TEXT: The oscillator considered is shown in Fig. 1. For the
purpose of analysis of this system it is assumed that the
static characteristics of the transistor can be approximated
by linear functions of the type:

$$v_k = R_m(i_k + \alpha i_e); \quad (1)$$

$$v_e = R_n(i_e + \beta i_k)$$

Here, v_k and v_e are the voltages at the collector and

Card 1/8

LX

86861

S/141/60/003/005/016/026
E192/E382

Theory of the Oscillator Based on a Point-contact Transistor
the emitter with respect to the base, i_k and i_e are the currents flowing in their circuits and R_m and R_n are the resistances of the collector and the emitter junctions whose values depend on the subscripts m and n (equal to zero or 1) depending on the region G_{mn} in which the transistor operates; α and β are constant coefficients such that $\alpha > 1$, $\beta < 1$ and $\alpha\beta < 1$. Eqs. (1) are valid for the regions G_{mn} , which are defined by the inequalities (2).
The equations describing the circuit of Fig. 1 can easily be derived. For the point ab the following expressions are true:

$$E - v_e = (i + i_e)r ; \quad (3)$$

$$- E - v_k = (- i + i_k) R \quad (4).$$

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E192/E382

Theory of the Oscillator Based on a Point-contact Transistor
Further, the following formulae should be introduced:

$$L di/dt + v = v_e - v_k ; \quad (5)$$

$$C dv/dt = i \quad (6) .$$

The significance of the various symbols in Eqs. (3) and (6) should be clear from Fig. 1. These equations can be combined and their variables can be changed in such a way that the final expressions are:

$$dy/dt' + 2\sigma'y + x = \lambda \quad (7)$$

$$dx/dt' = y \quad (8) .$$

Here, $x = v$ and $i = y/r$. The formulae represented by Eqs. (2) can also be written in the new variables. They are now in the form:

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S/141/60/003/005/016/026
E192/E382

Theory of the Oscillator Based on a Point-contact Transistor

$$(-1)^m(a_n - \gamma_n y) \geq 0 ; \quad (-1)^n(a_m - \gamma_m y) \leq 0 \quad (9).$$

Thus, the dynamics of the system of Fig. 1 is described by linear equations (7) and (8) for the four regions G_{mn} , which are defined by Eqs. (9). The system is in the state of equilibrium at the following coordinates:

$$x_0 = \lambda \quad \text{and} \quad y_0 = 0.$$

The position of the equilibrium state in the regions of G_{mn} as a function of the parameters ζ and E can easily be determined. From Eqs. (7) and (8) it can easily be seen that the condition of self-excitation of the oscillator is $\sigma' < 0$ and that this condition is met in the region G_{01} .

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UX

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S/141/60/003/005/016/026
E192/E382

Theory of the Oscillator Based on a Point-contact Transistor
 The case when the parameters ξ and E lie in the equilibrium region and the condition of self-excitation is met is investigated in some detail. It is shown that for $\xi/E < \eta/\mu$ (where $\eta = \rho/R$ and $\mu = \rho/r$), the boundaries of the ordinates should fulfil the following:
 $y_3 > y_1 > y_2 > y_4$; for $\xi/E > \eta/\mu$ the following should be met: $y_4 > y_2 > y_1 > y_3$. It is clear that each boundary contains a point at which the phase trajectory is at a tangent to the boundary. The coordinates of these contact points are defined by:

$$\begin{aligned}x_m &= \tilde{x}_m + s_m; \quad y_m = a_n/\gamma_n; \\x_n &= \tilde{x}_n + s_n; \quad y_n = a_m/\gamma_m\end{aligned}\tag{12}$$

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IX

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E192/E382

Theory of the Oscillator Based on a Point-contact Transistor where \tilde{x}_m is the abscissa of the point of contact on the boundary with subscript m , s_m is the distance between a point on the boundary and the contact point; the quantities with subscript n denote the corresponding coordinates for the other boundaries. The existence of the limit cycles in the system can be determined by investigating the correspondence functions (Ref. 2) for the point transformations of the segments of the boundaries of the linearity regions. The correspondence functions can be derived by introducing suitable new variables (Ref. 1) so that Eqs. (7) and (8) can be written as:

$$\dot{Y} + \alpha Y + X = 0; \quad \dot{X} + \alpha X - Y = 0 \quad (15).$$

By integrating this system it is possible to derive the correspondence functions in a parametric form; these

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S/141/60/007/005/016/026
E192/E382

Theory of the Oscillator Based on a Point-contact Transistor
define the values of S_m and S_n . By examining the
expressions for S_m and S_n , it is found that the
correspondence functions are monotonically increasing
functions with continuous variables. These properties are
preserved during the transition from one region to another,
although each region is characterised by its normalised
time τ and its σ and ω . The limit cycle is shown to
occur only when the self-excitation condition is fulfilled
and it can pass through the three regions G_{00} , G_{01} and G_{011}
or through one of the following pairs: G_{11} , G_{01} or
 G_{00} , G_{01} . There are 2 figures, 3 tables and 3 Soviet
references.

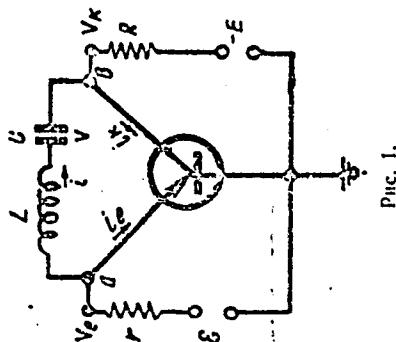
Circ 7/8

X

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S/141/60/003/005/016/026
E192/E382

Theory of the Oscillator Based on a Point-contact Transistor



Pic. 1.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-tehnicheskiy
institut pri Gor'kovskom universitete
(Scientific-Research Physico-technical
Institute of Gor'kiy University)

SUBMITTED: March 26, 1960

9,2560(1040,1159,1161)

S/141/61/004/002/012/017
E192/E382

AUTHORS: Ashbel', N.I. and Postnikov, L.V.

TITLE: Calculation of Oscillator Systems Based on
Transistors

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
Radiofizika, 1961, Vo. 4, No. 2, pp. 319 - 328

TEXT: In the calculation of transistor oscillators it is often convenient to approximate the static characteristics of the transistors by sections of straight lines. It was shown in a number of works (Ref. 2 - L.V. Postnikov - Izv. vyssh. uch. zav., Radiofizika, 2, 767, 1959; Ref. 4 - V.G. Aranovich, L.V. Postnikov - Radiofizika - in print) that under these conditions it is possible to give a general solution of the problem. In the following, this type of solution is applied to an autonomous system with one degree of freedom, and one transistor. For the purpose of analysis, it is assumed that in an autonomous system of the second order the nonlinearity is due to the transistor alone. The equations of the static characteristics of the transistor can be written in the form

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S/141/61/004/002/012/017

Calculation of Oscillator Systems..E192/E382

(Ref 2):

$$J_K = g_m v_K - \alpha g_n v_B \quad (1)$$

$$J_B = g_n v_B - \beta g_m v_K$$

where J_K , J_B and v_K , v_B are currents and voltages of the collector and emitter, respectively. Eqs. (1) are linear in each of the four regions G_{mn} , which are defined by:

$$(-1)^m v_K \leq 0; \quad (-1)^n v_B \leq 0 \quad (2)$$

(m, n = 0 or 1)

Further, it should be noted that $g_m \neq g_n$ for $m = n$ and

Card 2/7

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Calculation of Oscillator Systems... E192/E382

$$0 < g_0^m < g_1^m, \quad 0 < g_0^n < g_1^n.$$

The parameters α and β for junction transistors are less than unity; on the other hand, for point-contact transistors, $\alpha > 1$, $\beta = 1$ and $\alpha\beta < 1$. The linear portion of the system can be described by the following set of equations:

$$a_{l1}\dot{x} + a_{l2}y + a_{l3}v_x + a_{l4}v_y + a_{l5}J_K + a_{l6}J_s = b_{l1}x + b_{l2}y + b_{l3} \quad (l=1, 2, 3, 4),$$

where a and b are constant coefficients independent of the parameters of the transistor and x and y are those variables which cannot undergo discontinuous changes. By substituting J_K and J_s from Eqs. (1) into Eqs. (3), the following system is obtained:

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S/141/61/004/002/012/017

Calculation of Oscillator Systems...E192/E382

$$a_{11}\dot{x} + a_{12}\dot{y} + a_{1m}v_k + a_{1n}v_i = b_{11}x + b_{12}y + b_{13}; \quad (4)$$
$$G_{mn} : (-1)^m v_k = 0; \quad (-1)^n v_i = 0.$$

where

$$a_{1m} = a_{11} + g_m a_{12} - g_m a_{1n}; \quad (4a)$$
$$a_{1n} = a_{11} + g_n a_{12} - g_n a_{1m}.$$

It is now assumed that the determinant A , constructed from the coefficients of the lefthand-side portion of Eqs. (4), is different from zero in all the regions G_{mn} . In this case, the solution of these equations with respect to the variables \dot{x} , \dot{y} , v_k and v_i is:

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Calculation of Oscillator Systems E192/E382

$$\begin{aligned} A\dot{x} &= x \sum b_{11} A_1^t + y \sum b_{12} A_2^t + \sum b_{13} A_3^t; \\ A\dot{y} &= x \sum b_{21} A_1^t + y \sum b_{22} A_2^t + \sum b_{23} A_3^t; \\ Av_k &= x \sum b_{11} A_m^t + y \sum b_{12} A_n^t + \sum b_{13} A_m^t; \\ Av_s &= x \sum b_{21} A_n^t + y \sum b_{22} A_n^t + \sum b_{23} A_n^t. \end{aligned} \quad (5)$$

where the quantities A_j are the determinants derived from the determinant Λ of the system. The first pair of these equations represents the differential equations of the motion of the system, while the second pair determines the distribution of the regions G_{mn} on the xy plane. The linearity regions G_{mn} on the phase plane are determined by the inequalities:

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Calculation of Oscillator Systems . . .

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E192/E382

$$\Gamma_m = \frac{(-1)^m}{A} \left(x \sum b_{11} A_m^l + y \sum b_{12} A_m^l + \sum b_{13} A_m^l \right) < 0;$$

$$\Gamma_n = \frac{(-1)^n}{A} \left(x \sum b_{11} A_n^l + y \sum b_{12} A_n^l + \sum b_{13} A_n^l \right) < 0, \quad (6)$$

from which it follows that, in general, the plane is divided into four regions by means of four straight lines issuing from the same point. From Eqs. (6) it is also found that if during transition from one region G_{mn} into another, the quantity A does not change its sign, the regions cover the whole phase plane without overlapping. On the other hand, if in three regions G_{mn} it is found that $A > 0$ and in the fourth region $A < 0$, the phase plane in this region is overlapped (three times). In this case, the system of equations is contradictory. The coordinates of the equilibrium states of the system can be obtained from Eqs. (5) by assuming that $\dot{x} = \dot{y} = 0$. The characteristic equation of the system of Eqs. (5) is in the form:

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S/141/61/004/002/012/017
Calculation of Oscillator Systems... E192/E382

$$Ap^2 - \left(\sum b_{il} A_1^i + \sum b_{i2} A_2^i \right) p + \sum b_{il} b_{j2} A_{12}^{ij} = 0 \quad (12)$$

The correspondence functions for the case of a non-overlapping phase plane are determined and it is found that these functions are continuous and monotonically increasing or decreasing functions with continuous variables. The correspondence functions can be used in order to determine the periodic regimes of the oscillator and to study the stability of these regimes. However, this is a complex problem, which is not attempted in this work. There are 7 Soviet references. *WT*

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-tehnicheskiy institut pri Gor'kovskom universitete
(Scientific Research Physicotechnical Institute
of Gor'kiy University)

SUBMITTED: October 11, 1960

Card 7/7

33229

S/141/61/004/006/016/017
E192/E382

9,2560 (1040,1139,1160,1161)

AUTHORS: Ashbel', N.I. and Postnikov, L.V.

TITLE: The stability problem of transistor circuits

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
Radiofizika, v. 4, no. 6, 1961, 1149 - 1154

TEXT: It is shown, on the basis of the diffusion equation
describing the motion of the minority carriers in the base of
a transistor, that the collector and emitter currents of a
transistor can be expressed in operatorial form by:

$$I_k = g_k \bar{v}_k - \alpha g_e v_e \quad (6)$$

$$I_e = g_e \bar{v}_e - \alpha g_k \bar{v}_k$$

where:

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E192/E82

The stability problem

$$g_k = \frac{qI_n}{kT} e^{qv_k/kT} v_1 \cosh w v_1 = g_{kv_1} \cosh w v_1; \quad (7)$$

$$g_e = \frac{qI_o}{kT} e^{qv_e/kT} v_1 \cosh w v_1 = g_{ev_1} \cosh w v_1.$$

In the above, $g = I_{o'1} \cosh w v_1$, $\alpha = 1/\cosh w v_1$, and
 $v_1 = \sqrt{1 + \tau_1 p_1}$. The other symbols are as follows:

w is the normalized base width,
 $I_o = sqp_o D_p$ (s is the area of the base, q is the electron charge, p is the equilibrium hole concentration and D_p is the diffusion constant),
 k is the Boltzmann constant, and
 T is the absolute temperature;
 v_e and v_k represent small voltage deviations at the

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The stability problem

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emitter and collector junctions with regard to
the operating-point voltages v_1 and v_2 .

The symbol p_1 in Eqs. (6) and (7) represents the Laplace transformation and it is seen that for $p_1 = 0$, Eqs. (6) are the same as the static equations of the transistor. Eqs. (6) can be used in investigating the dynamic behaviour of transistor circuits - in particular, their stability. This can be done by using the D-separation method (Ref. 4: Yu.I. Neymark - Stability of Linearized Systems - LKVVIA, L., 1949; Ref. 5: Yu.I. Neymark, Yu.I. Gorodetskiy, N.N. Leonov - Izv. vyssh. uch. zav., Radiofizika, 2, 967, 1959). The method is employed to investigate the stability of a blocking oscillator shown in Fig. 1. It is shown that the characteristic equation of the system is in the form of:

$$(L_1 L_2 - M^2)(1 - \alpha^2)g_k g_e p_1^2 + [L_1 g_e + L_2 g_k - \alpha M(g_k + g_e)] p_1 + 1 = 0$$

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(9).

The stability problem

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By applying the D-separation method to Eq. (9), it is found that for small γ (where $\gamma = \tau_1 / \sqrt{g_{k_0} g_{e_0} L_1 L_2}$) the excitation condition for the oscillations is almost identical with that of an oscillator described by static characteristics when the inertia of the carriers is not taken into account; as γ is increased, the self-excitation conditions deteriorate. For a given γ the excitation condition is improved by increasing the current amplification factor α_0 and the ratio of the admittances of the emitter and collector junctions; the optimum value of the feedback coefficient is obtained when the product of the transformation ratio and the square root of the ratio of the emitter and collector admittances is equal to unity. A blocking oscillator can also be excited when provided with negative feedback but, in this case, γ should be of the order of 10^4 , which can only be achieved if the inductances are small. In the case of the transistor, type 11-16 (P-16), the inductances are of the order of 1 μ H and it was therefore

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The stability problem

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E192/E382

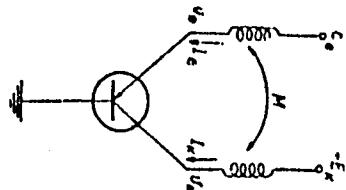
impossible to produce oscillations in the presence of a negative feedback.

There are 2 figures and 5 Soviet-bloc references (one of which is a translation from English).

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-tehnicheskiy institut pri Gor'kovskom universitet
(Scientific Research Physicotechnical Institute of Gor'kiy University)

SUBMITTED: May 20, 1961

Fig. 1:



Card 5/5

ASHBEL', N.I.; YEMEL'YANOVA, I.S.; POSTNIKOV, L.V.

Use of single-terminal pairs containing a tunnel diode and a transistor
in computer units. Izv. vys. ucheb. zav.; radiofiz. 6 no.4:833-839
'63.
(MIRA 16:12)

1. Nauchno-issledovatel'skiy fiziko-tehnicheskiy institut pri
Gor'kovskom universitete.

ACCESSION NR: AP4017040

S/0141/63/006/006/1216/1226

AUTHORS: Ashbel', N. I.; Postnikov, L. V.

TITLE: Concerning the theory of the LR transistor oscillator

SOURCE: IVUZ. Radiofizika, v. 6, no. 6, 1963, 1216-1226

TOPIC TAGS: oscillator, LR oscillator, transistor LR oscillator, phase plane, phase plot, limit cycle, stability boundary, stability boundary transformation, canonical transformation, pointwise transformation, self oscillating system, self oscillation period

ABSTRACT: The method previously developed by the authors (Izv. VUZ'ov-Radiofizika, v. 4, 319, 1961) for the calculation of the parameters of transistorized self-oscillating systems is used to determine the dynamic behavior of an LR oscillator. The static model of the transistor is employed. Generalized equations of motion are derived by approximating the transistor static characteristics by

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ACCESSION NR: AP4017040

means of piecewise linear functions. The phase plane is then broken up into linearity regions and the distribution of the equilibrium states in these regions and the stability of each state are then ascertained. The existence, uniqueness, and stability of the limit cycle are proved and the self-oscillation period determined. A qualitative comparison of the results with the behavior of a real transistor oscillator confirms the developed theory. Orig. art. has: 5 figures and 25 formulas.

ASSOCIATION: Nauchno issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Scientific Research Radiophysics Institute of Gor'kiy University)

SUBMITTED: 16Feb63

DATE ACQ: 18Mar64

ENCL: 00

SUB CODE: GE

NO REF SOV: 011

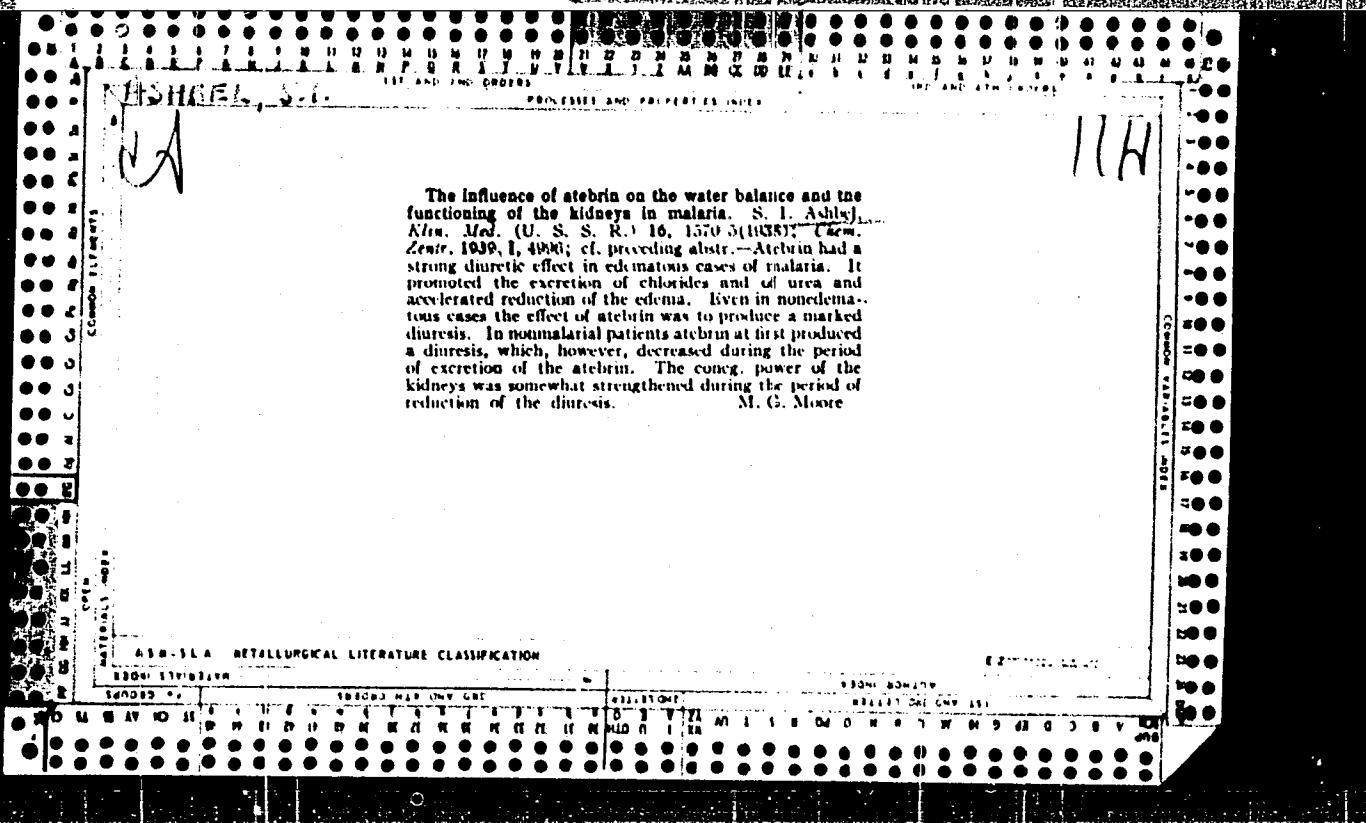
OTHER: 000

Card 2/2

ASHBEL', N.I.; POSTNIKOV, L.V.

Design of a transistor LR-oscillator. Radiotekh. i elektron.
11 no.1:116-122 Ja '66.
(MIR 19:1)

1. Submitted September 19, 1964.

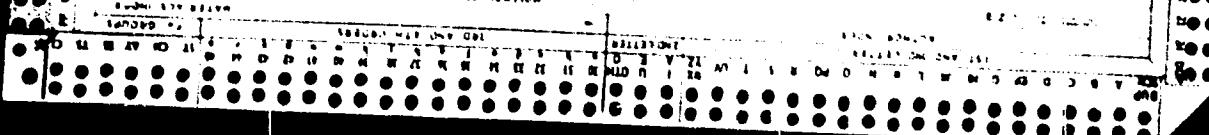


ASHBEL, S. J.

Dynamics of the excretion of atebuin (acrinine) from the organism and its effect on the functioning of the kidneys. S. I. Ashbel, *J. Physiol. (U. S. S. R.)* 25, 171 (1938); *Chem. Zentralbl.* 1939, I, 4085 (6). - The time at which the atebuin appears in the urine and the duration of its excretion from the organism depend upon the dose of the prepn. administered. Its excretion through the kidneys produced a definite effect on the functioning of these organs; an increase in diuresis occurring in the first 2 hrs after administration of the prepn. Thereafter, the diuresis decreased with the amt. of atebuin which had been excreted; this reached a min. value the 3rd day after administration of the atebuin. The diuresis was compensated by the decrease in the atebuin content of the urine. No relation could be discovered between values for the excretion of atebuin, chlorides and urea.

M. G. Moore

ABR-1A - METALLURGICAL LITERATURE CLASSIFICATION



ACI TO RIN, S.E.

*Ca**114*

Dynamics of the elimination of atebnin in the bile in the therapy of lambliaosis. S. I. Aeblin. *Arch. (U. S. S. R.)* 17, No. 3, 80-8 (1939); *Chem. Zentr.* 1940, I, 1068; cf. *C. A.* 34, 80504. — In 25 cholecytitis cases the duodenal fluid was analyzed after parenteral administration of atebnin as follows: the fluid was diluted to 50 cc. with H₂O, extd. with AmOH and the atebnin extd. from the diln. required to cause disappearance of the green fluorescence. The elimination of atebnin with the bile began 2 days after treatment was instituted, reached a max. in 8-13 days and was complete after 32 days. The favorable results of treatment of lambliaosis with atebnin are attributed to the high parasitotropic effect and the protracted elimination.
H. E. Wirth

PA 26T35

ASHBEL', S. I.

USER/Medicine - Malaria
Medicine - Medicine, Military

Sep 1947

"Characteristics of the Spread of Malaria During War," S. I. Ashbel', Dr. of Medical Sciences, I. A. Monov, 6 pp

"Vozemo-Meditsinsky Zhurnal" No 9

During World War II malaria appeared in many forms and of varying intensities as a disease of the inner organs. In most of the cases malaria attacked the nervous system, myocardium, digestive organs, and the kidneys. In most cases malaria of these organs was cured by regular malaria therapy, but it was not successful in cases where malaria

26T35

IC
USER/Medicine - Malaria (Contd) Sep 1947

was further complicated by such diseases as tuberculosis, consumption, or pneumonia. Treatment by means of atebnin was found to be very effective. Many thousand cases were treated with this drug. Experimental work and compilation of data was done at the Therapeutic Clinic of the Gor'kiy Medical Institute.

JEB

26T35

ASHBEL', S. I.

PA 75T54

USSR/Medicine - Malaria, Therapy Apr 1948
Medicine - Lambliasis, Therapy

"Review of 'Atabrin and Its Widespread Use in Malaria and Lambliasis' by S. I. Ashbel', Prof I. A. Kassirskiy, 1 p

"Sov Neditsina" No 4

Monographic presentation of various problems connected with use of atabrin for treatment of malaria and lambliasis. Critic states that second printing of book should contain more concrete examples of achievements and less bibliographical notes.

75T54

ASIBEL', S.I.

Treatment of balantidiasis. Klin. med., Moskva 30 no.2:47-51 Feb 1952.
(CMLL 22:1)

1. Of Gor'kiy Oblast Clinical Hospital imeni N. A. Semashko (Head
Physician -- Honored Physician RSFSR K. I. Kusnetsov).

1. ASHBEL', S. I., STOLPETSAYA, V. G., Profs.
2. USSR (600)
4. Lungs-Diseases
7. Aerosol-penicillin inhalation therapy of suppurative pulmonary processes in pneumo-sclerosis of toxico-chemical etiology. Klin. med. 30 no. 10 1952.
9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

ASHBEL', S.I.; KRAKOVSKIY, A.V.; SOKALOVA, V.G.

Apparatus for aerosol penicillin therapy. Ter. arkh., Moskva 25 no.
1:74-80 Jan-Feb 1953. (CIML 24:1)

1. Professor for Ashbel': Designing Engineer for Krakovskiy; Scientific Associate for Sokolova. 2. Of the Clinical Department of Gor'kiy Institute of Labor Hygiene and Occupational Diseases (Director -- Docent A. S. Arkhipov).

ASHBEL', S.I., professor (Gor'kiy); SHARONOVА, Z.V. (Gor'kiy).

Treatment of bronchial asthma with inhalations of dimesrol and penicillin aerosols. Klin.med. 31 no.12:72-73 D '53. (MLRA 7:1)

1. Iz klinicheskogo otdela (zaveduyushchiy - professor S.I.Ashbel') Gor'kovskogo instituta gigiyeny truda i professional'nykh zabolеваний. (Asthma) (Penicillin) (Inhalation (Therapeutics))

ASHDEL S.I., STOLBTSKAYA N.G. and SVOGLOVA V.G. Clin. Dept.
Res. Inst. of Hyg., of Labour and industr. Dis., Min. of Hlth, Ussr.
*Experiences in the treatment of viral influenza and inchemoprophylaxis
of this disease under working conditions (Russian text) SOVETSK.ED. 1954,3(22-23)

Acriquine is applied as an aerosol with or without penicillin for prophylactic purposes as well as for treatment during the early period of disease. The experiments which have been performed during an epidemic of viral influenza in the spring of 1952 on numerous groups of patients proved to be very encouraging. It is therefore necessary-at least from the standpoint of national economy to save labour-hours, - to apply aerosols for prophylactical and therapeutical purposes. Even treatment beginning only in the later period of disease is useful, as it prevents complications and shortens the course of disease. Further studies and expansion of the treatment by aerosols in the course of viral influenza are necessary.

Jettmar - Graz

SO: Excerpta Medica, Vol. 1 No. 2 Section XVII, February 1955.

ASHBEL', S.I.

Scientific conference of young scientists of the Gorkiy Institute
of Industrial hygiene and Occupational Diseases. Gig. i san. no.10;
56-57 O '54.
(INDUSTRIAL HYGIENE,
in Russia, conf.)
(MLRA 7:11)

Mikhel, S.I.

The dynamics of absorption and circulation of sodium
norsulfazole in various methods of administration. S. I.

Ashbel Z. G. Cherenina and A. A. Kormakova (Inst. of
Fire and Occupational Diseases, Gorki). Teap. Arkh. 26,
No. 6, 67-73 (1954).—The object of the study was to find out
the cause of the relative ineffectiveness of the sulfonamide
group in chronic pulmonary inflammations despite high use-
fulness in acute processes. Na norsulfazole was selected as
most suitable for study owing to its high effectiveness and
solubility in water which permits oral and parenteral administra-
tion. Following oral administration it circulates in the
blood for 5-6 hrs., is slowly excreted in the urine during 24
hrs., but is absent in the sputum or present only in traces.
When the aerosol-inhalation method is used 15 cc. of a 40%
soln.) the drug appears in the sputum in high concn. but is
absent in the blood and excreted rapidly. A comparison
of both methods is made in terms of absorption and excretion of
both drug combination and its derivatives.

A. S. Mikhel

EXCERPTA MEDICA Sec. 6 Vol. 11/4 Apr. 57
ASHBEL S. I.

2273. ASHBEL S.I. *The basic principles and therapeutic methods of pneumoscleroses (Russian text) KLIN. MED. (Mosk.) 1955, 33/12 (47-53)

The result of treatment of toxic pneumoscleroses is based on specially organized prophylactic methods, lung exercises, oxygen therapy, antibiotic therapy and sulphonamide therapy by means of aerosol inhalation, the introduction of penicillin, an adapted diet, profuse administration of vitamins, sanatorium treatment in places with a favourable climate, and symptomatic treatment.

Frey - Berlin (XV, 6)

Iz klinicheskogo otdela (zav. prof. S. I. Ashbel) Gor'kovskogo instituta gigиgiene truda i perofzabolenniy.

EXCERPTA MEDICA Sec 6/Vol 13/6 Internal Medicine June 59

2838. INFLUENCE OF VARIOUS PROTEIN FOODS ON THE NITROGEN BALANCE IN PATIENTS SUFFERING FROM PNEUMOCONIOSIS (Russian text) -

Ashbel S. I. and Keselbrener E. G. Inst. of Industr. Hyth and

Occup. Dis., Gorkii - VOPR. PIT. 1956, 15/2 (14-18) Tables 4
In patients suffering from pneumoconiosis complicated by chronic purulent processes in the respiratory tract, the output of protein exceeds the intake, and the N balance becomes negative on a diet which in normal individuals would ensure N equilibrium. The negative N balance in these patients is largely due to the loss of proteins from the copious purulent expectoration. Their capacity to assimilate protein is reduced, but by a properly chosen diet the negative N balance can be reversed. This can be achieved by increasing the total protein intake and by the selection of suitable aminoacids, especially those present in milk protein. The diet of patients suffering from pneumoconiosis should contain 2.0 to 2.2 g. protein per 1 kg. body weight per day (average 140 to 150 g.). Two thirds should be animal protein, and 50% of this taken as milk, cheese curds and cheese.

Krymskii - Moscow (S)

ASHBEL', S.I., professor

Dynamics of the absorption and circulation of the sodium salt of para-aminosalicylic acid in the body following various methods of administration. Probl.tub. 34 no.6 supplement:4-5 N-D '56.

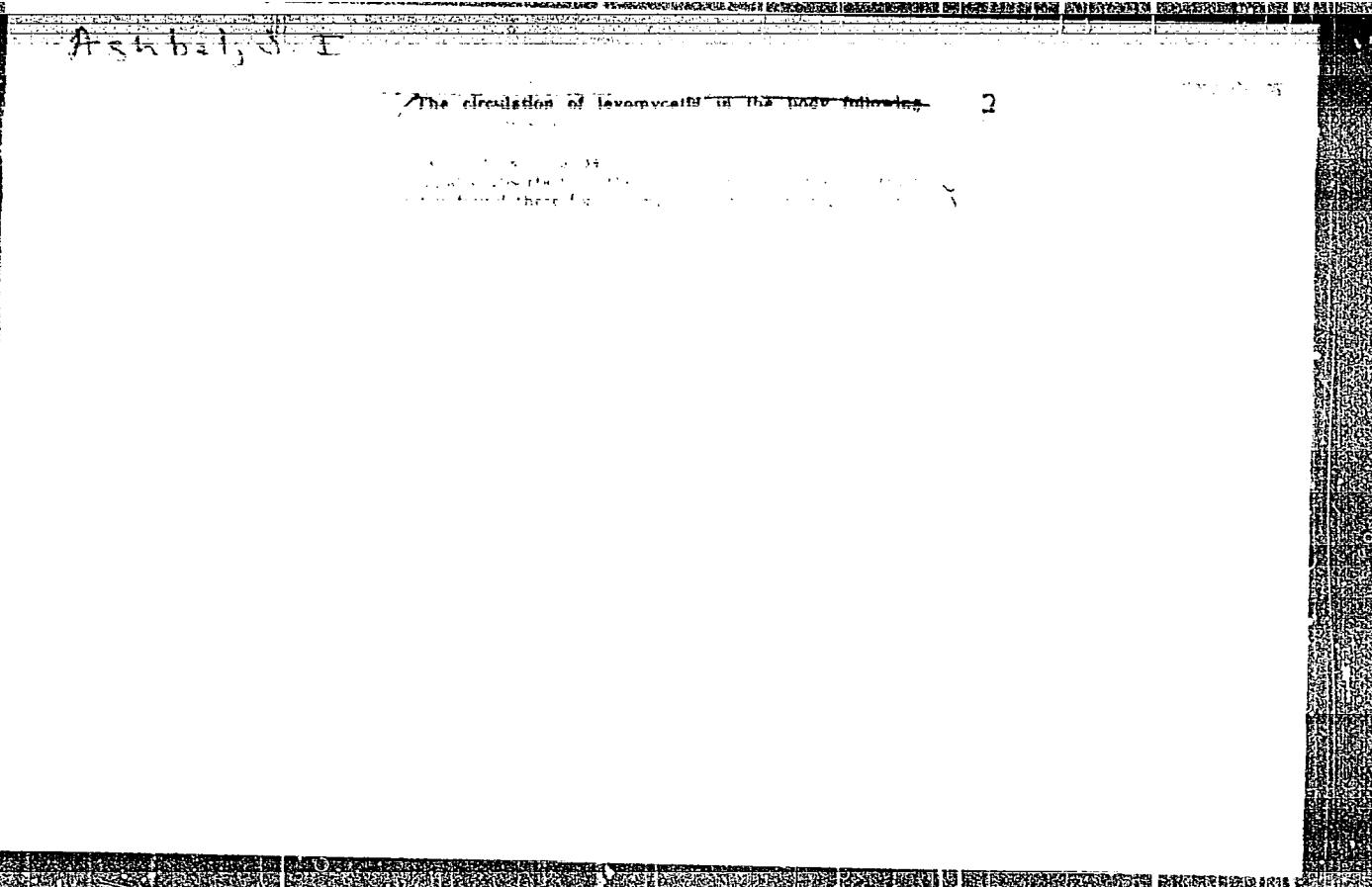
(MLRA 10:2)

1. Iz klinicheskogo otdela (zav. - prof. S.I.Ashbel') Gor'kovskogo instituta pigiyeny truda i profzabolevaniy (dir. - kandidat meditsinskikh nauk O.M.Gavruseyko)

(PARAAMINOSALICYLIC ACID, administration,
absorp. & circ. after various modes of admin. (Rus))

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ASHBEL', S.I., prof.; SMIRNOVA, V.K., nauchnyy sotrudnik

Aerosol inhalation therapy using aminophylline and penicillin
in bronchial asthma. Vrach.delo supplement '57:9-10 (MIRA 11:3)

1. Klinicheskiy otdel (sav.-prof. S.I.Ashbel') Gor'kovskogo nauchno-
issledovatel'skogo instituta gigiyeny truda i professional'nykh
zabolevaniy.

(AEROSOL THERAPY) (ASTHMA)

Ashbel, S. I.

"Results of the Therapy of Intoxications by Organic Mercury Compounds With Unithiol," by Prof S. I. Ashbel' and V. A. Tret'yakova, Clinical Division (head, Prof S. I. Ashbel'), Gorkiy Institute of Labor Hygiene and Occupational Diseases, Vrachebnoye Delo, Moscow, No 1, Jan 57, pp 6-7

The article reports results of the clinical use of unithiol, a sulphydryl compound, as an antidote in the therapy of occupational intoxication contracted by 22 workers who, while engaged in the production of granozan, came in contact with ethyl mercury and ethyl mercuric chloride, or were affected by the vapors of metallic mercury. In all cases the results were positive. Notwithstanding the fact that fairly large doses of unithiol were administered to the patients (up to 50 millimeters in the course of the treatment) the preparation was well tolerated by them. No toxic or damaging effects were noted. In this respect unithiol is superior to BAL, the foreign preparation which even in therapeutic doses is fairly toxic. (U)

SCM.1302

A.S.I./D.R.K.
USSR/Pharmacology, Toxicology. Chemotherapeutical Preparations

V-7

Abs Jour : Ref Zhur - Biol., No 5, 1958, No 23441

Author : Ashbel S.I., Sokolova V.G.
Inst : Not Given

Title : About Chlorotetracycline Absorption, Circulation and Excretion From the Organism.

Orig Pub : Antibiotiki, 1957, 2, No 1, 40-45

Abstract : The study was made on 127 men. It was found that chlorotetracyclin (I), orally administered in a 0.25 g dose, was rapidly absorbed and excreted by the kidneys; a bacteriostatic concentration of I (0.03-3.84 γ/ml) was maintained in the blood for 18-22 hours. I was excreted in the urine up to 73 hours in concentrations which exceeded considerably the blood concentration of the antibiotic for the same period. Apparently, the kidneys had the ability to concentrate I. By the stomach wall I was excreted up to 37 hours, and in the bile up to 15-16 hours in 0.22-1.2 γ/ml concentrations.

Card : 1/1

ASHBEL', S.I.; SOKOLOVA, V.G.

Absorption, circulation, and elimination of chlortetracycline.
Antibiotiki 2 no.1:40-45 Ja-F '57. (MIRA 12:11)

1. Gor'kovskiy nauchno-issledovatel'skiy institut gigiyeny truda i
professional'nykh zabolеваний.
(CHLORTETRACYCLINE, metab.
absorp., circ. & elimination)

ASHBEL', S.I.; FILATOVA, V.S. (Gor'kiy)

Basic tasks in the prevention of occupational poisoning among
workers of chemical industries. Gig.truda i prof. zab. no.4:
12-16 Jl-Ag '57.
(MIRA 10:11)

1. Institut gigiyeny truda i profzabolevanii
(CHEMISTRY, TECHNICAL--SAFETY MEASURES)
(INDUSTRIAL TOXICOLOGY)

ASHBEL', S.I., professor; AZOVSKAYA, I.I.; SOKOLOVA, V.O.

Levomycetin therapy for chronic pulmonary suppurations in pneumo-sclerosis. Vrach.delo no.8:871-873 Ag '57. (MLRA 10:8)

1. Klinicheskiy otdel (zav. - prof. S.I.Ashbel') Gor'kovskogo nauchno-issledovatel'skogo instituta gigiyeny truda i professional'nykh zabolеваний
(CHLOROMYCETIN) (LUNGS--DISEASES)

ASHBEL', S.I., professor; SOKOLOVA, V.G.; KHARITONOV, V.V.

Effectiveness of biomycin treatment in chronic suppurative diseases
of the lungs. Klin.med. 35 no.5:28-32 My '57. (MLRA 10:8)

1. Iz klinicheskogo otdela (zav. - prof. S.I.Ashbel') Gor'kovskogo
nauchno-issledovatel'skogo instituta gigiyeny truda i profzabolева-
niy (dir. - kandidat meditsinskikh nauk O.M.Gavruseyko)
(LUNG DISEASES, ther.

biomycin in chronic suppurative dis.)
(ANTIBIOTICS, ther. use

biomycin, in chronic suppurative dis. of lungs)

ASHBEL', S.I., SOKOLOVA, V.G., SMIRNOVA, V.K.,

Changes in the sensitivity of sputum microflora and the development
of moniliasis in antibiotic therapy of suppurative lung diseases.
[with summary in English]. Antibiotiki, 3 no.3:109-112 My-Je '58

1. Gor'kovskiy gosudarstvennyy nauchno-issledovatel'skiy institut
gigiyeny truda i professional'nykh bolezney.

(MIRA 11:7)

(SPUTUM, microbiology,
antibiotic sensitivity in ther. of pulm. suppurative
dis. (Rus))

(MONILLIASIS, etiology and pathogenesis,
antibiotic ther. of suppurative pulm. dis (Rus))

(LUNG DISEASE, therapy,
suppurative, antibiotics causing moniliasis & changes
of sputum bact. sensitivity(Rus))

ASHBEL', S.I., TRET'YAKOVA, V.A.

Circulation and deposition of mercury compounds in the organism,
Farm. i toks. 21 no.2:78-82 Mr-Ap '58 (MIRA 11:6)

1. Gor'kovskiy gosudarstvennyy nauchno-issledovatel'skiy institut
gigiyeny truda i profzashchity.
(MERCURY, poisoning

deposition & circ. in various organs in fatal case
(Rus))

ASHBEL', S. I., prof.; SOKOLOVA, V.G.; AZOVSKAYA, I.I.

Treatment of chronic lung suppurations with oxytetracycline (terramycin).
Sov. med. 22 no.12:32-38 D '58.
(MIRA 12:1)

1. Iz klinicheskogo otdela (zav. - prof. S. I. Ashbel') Gor'kovskogo
nauchno-issledovatel'skogo instituta gigiyeny truda i professional'nykh
bolezney (dir. - kand. med. nauk O. M. Glavrusyko).
(LUNG DISEASES, ther.)

oxytetracycline in chronic suppurations (Rus)
(OXYTETRACYCLINE, ther. use
chronic lung suppurations (Rus))

ASHBEL', S.I., prof.

Working capacity in pneumosclerosis of toxic-chemical etiology.
[with summary in English]. Gig. i san. 23 no.8:27-33 Ag '58

1. Iz klinicheskogo otdela Gor'kovskogo instituta gigiyeny truda
i professional'nykh bolezney. (MIRA 11:9)

(OCCUPATIONAL DISEASES,

pulm. fibrosis in chem. industr. (Rus))

(PULMONARY FIBROSIS, etiol. & pathogen.

tox. factors in chem. industr. (Rus))

ASHBEL', S.I. (Gor'kiy)

Diagnosis of lung cancer in patients with toxic pneumosclerosis.
Gig.truda i prof.zab. 3 no.1:11-16 Ja-F '59. (MIRA 12:2)

1. Institut gigiyeny truda i profzabolevaniy.
(LUNGS--CANCER)

ASHBEL', S.I.

Out-of-town scientific conference on problems of industrial hygiene.
Gig.truda i prof.zab. 3 no.5:61 S-0 '59. (MIRA 13:2)
(INDUSTRIAL HYGIENE)

ASHEEL', S.I., prof. (Gor'kiy)

Teaching occupational pathology in medical institutes.
Gig. truda i prof. zab. 4 no.2:38-40 F '60. (MIRA 15:3)

1. Institut gigiyeny truda i professional'nykh bolezney.
(OCCUPATIONAL DISEASES)
(MEDICINE, INDUSTRIAL--STUDY AND TEACHING)

ASHBEL', S.I.; VOLOVIK, E.M.; SHIRYAYEVA, Ye.S. (Gor'kiy)

Invalidism as a consequence of certain occupational diseases.
Gig. truda i prof. zab. 4 no.4:55-56 Ap '60. (MIRA 15:4)

1. Institut gigiyeny truda i professional'nykh zabolеваний.
(OCCUPATIONAL DISEASES) (DISABLED)